MISKARLI, A.K.

B-14

USSR/Chemistry of Colloids - Dispersed Systems.

Abs Jour : Referat Zhur - Khimiya, No 6, 1957, 18783

Author : A.K. Miskarli, T.G. Gasanova.
Inst : Academy of Sciences of Azerbaijan SSR.
Title : Structural-Mechanical Properties of Claycy Solutions and Their Dependence on Mineralogical Composition and Colloidal-Chemical Nature of Clays.

Orig Pub : Me'ruzeler Azerb.SSR elmler Akad., Dokl. AN AzerbSSR, 1956, 12, No 9, 629-638

Abstract : The comperative study of properties and composition of Malinskaya (I) and Zykhskaya (II) clays showed that I is a highly colloidal sodium clay and that II is a little colloidal calcium clay. The specific surface determined by the method of methylene blue adsorption of I is 231, and that of II is 93 sq.m/g. I is distinguished by a considerably greater swelling in distilled water (833% against 300% of II). The swelling of I in sea

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MISKARLI, A.K.

MISKARLI, A.K.; ZEMLYANSKAYA, V.Ya.; GASANOVA, T.G.

Analyzing an alkaline solution of pomegranate rind as a new reagent for treating drilling muds. Azerb. neft. khoz. 36 no.5:10-11 My '57. (MIRA 10:11)
(Pomegranate) (Oil well drilling fluids)

MISKARLI, A.K.

MISKARLI, A.K.; ZEMLYANSKAYA, V.Ya.

New preparations for obtaining superweighted drilling muds.
Azerb. neft.khoz. 36 no.9:12-14 S '57. (MIRA 11:2)
(Oil well drilling fluids)

MISKARLI, A.K.; DZHALILZADE, T.A.

Structural and mechanical properties of weighted drilling fluids and the effect of the concentration of weighting materials and reagent additions. Izv.AN Azerb.SSR.Ser.Fiz-tekh. i khim.nauk. no.1:107-115 '58. (MIRA 12:3)

(Oil well drilling fluids)

MISKARLI, A.K.; ZEMLYANSKAYA, V.Ya.

Improvement of the method of producing heavier stabilized drilling muds for drilling wells under complicated conditions. Izv. AN Azerb. SSR. Ser. fiz.-tekh. i khim. nauk no.5:97-107 '58.

(Oil well drilling fluids) (MIRA 12:1)

MISKARLI, A.K.; GASANOVA, T.G.; MAMEDOV, G.M.

Investigating magnetite from the Dashkesan deposit as a weighting material for drilling fluids [in Azerbaijani with summary in Russian]. Dokl. AN Azerb.SSR 14 no. 8:603-609 '58. (MIRA 11:8)
(Dashkesan--Magnetite)
(Oil well drilling fluids)

AUTHORS: Miskarli, A.K., Gasanova, T.G.

69-58-2 -10/23

TITLE: The Structural-Mechanical Properties of the Clay Suspensions Employed Under Difficult Drilling Conditions (O strukturno-mekhanicheskikh svoystvakh glinistykh suspenziy, primenyayemykh v oslozhnennykh usloviyakh bureniya)

PERIODICAL: Kolloidnyy zhurnal, 1958, Vol XX, Nr 2, pp 184-193 (USSR)

ABSTRACT: The technological properties of clay solutions determine to a high degree the drilling speed in the turbine drilling of oil and gas wells. In this article, the dependence of structure formation in concentrated clay suspensions on their mineralogical composition, the chemical composition of the exchange complex, the colloidal-chemical nature of the clays, and on the form, concentration, and fractional composition of the weighting compounds, is studied. The clays used were Gekmalinsk sodium bentonite clay and Zykh hydromica-calcium caolinite clay, both of which are characteristic of the Apsheron Peninsula. The specific surface of Gekmalinsk clay is 231 m^2/g, and of Zykh clay 93 m^2/g. The swelling in Gekmalinsk clay reaches 833 weight % of water and in Zykh clay 286 %. The hydroscopic ability of the clays measured by adsorption of water vapors is 27.7 % for Gekmalinsk clay

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The Structural-Mechanical Properties of the Clay Suspensions Employed Under Difficult Drilling Condistions

and 12.1 % for Zykh clay. Table 1 shows the composition of the exchange complex in the two clays. The volume of the complex in Gekmalinsk clay is nearly 3 times larger than that of Zykh clay. The mentioned facts indicate that highly colloidal sodium clays, (Gekmalinsk) exhibit hydrophyli properties in a higher degree than the less colloidal cal cium clays, (Zykh). Investigation of the aging process shows that during the first 3 hours the resistance of the structure increases considerably (figure 2). An increase of the clay concentration from 10-15 % increases the resist ance of the structure in the suspensions by 2.2 times. Table 3 shows the limit values for the shear stress in clay suspensions. The relation between mineralogical composition, colloidal-chemical nature, and the processes of structure formation, is very pronounced. Clay solutions are mixed with weighting compounds, especially for use in complex geological conditions. The weighting compounds influence rheological and colloidal properties of the clay solutions. The chemical composition of the weighting compounds is

The Structural-Mechanical Properties of the Clay Suspensions Employed Under Difficult Drilling Conditions

given in table 5, their characteristics in table 4. Figure 6 shows that clay solutions containing various concentrations of limestone have only a low structure resistance which permits the increase of carbonate rock concentrations in the clay suspensions. In this way, high-quality clay weighting compounds may be obtained with a specific gravity of 1.7 to 1.85. Disperse materials which may be recommended as weighting compounds for clay solutions, should have a low affinity to water, hydrophobic nature, and a low structure-forming ability owing to the isodiametric form of the particles.

There are 6 graphs, 5 tables, and 17 Soviet references.

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The Structural-Mechanical Properties of the Clay Suspensions Employed Under Difficult Drilling Conditions

69-58-2 -10/23

ASSOCIATION: Institut khimii AN Azerbaydzhanskoy SSR, Baku (Institute of Chemistry of the Azerbaydzhan SSR, Baku)

SUBMITTED: February 9, 1957

1. Oil wells--Drilling--USSR 2. Clay--Suspensions--Applications 3. Clay--Mechanical properties

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MISKARLI, A.K.; GASANOVA, T.G.; ZEMLYANSKAYA, V.Ya.

New reagents for the chemical processing of clay suspensions from industrial vegetable wastes. Azerb. neft. khoz. 37 no.9:13-17 S '58. (MIRA 11:12)

(Chemical tests and reagents) (Oil well drilling fluids)

GURVICH, M.M.; MISKARLI, A.K.

Low-viscosity, powdery carbon-alkali reagent. Azerb.khim. zhur. no.2:77-84 '59. (MIRA 13:6)
(Oil well drilling fluids)

MISKARLI, A.K.; ZEMLYANSKAYA, V.Ya.; GASANOVA, T.G.

Effect of alkaline plant extracts on the structural-mechanical and rheological properties of dispersive clay systems. Azerb.khim.zhur. no.3:49-58 '59. (MIRA 14:9)

(Clays)

MISKARLI, A.K.; ZEMLYANSKAYA, V.Ya.

Adsorption of plant extracts by clays. Azerb.khim.zhur. no.6: 57-65 '59. (MIRA 14:9)

(Extracts) (Adsorption)

MISKARLI, A.K.; BAYRAMOV, A.M.

Studying the stabilization of clay suspensions by sodium salts of monobasic organic acids of the aliphatic series. Dokl.AN Azerb. SSR 15 no.6:487-492 '59. (MIRA 12:9)

1. Institut khimii AN AzerSSR.
(Clay) (Acids, Fatty)

MISKARLI, A.K.; GASANOVA, S.B.

Studying the stabilizations of clay suspensions by surface active agents. Dokl. AN Azerb. SSR 15 no.9:809-814 '59.

(Clay) (Surface active agents) (MIRA 13:2)

MISKARLI, A.K.

Structure-mechanical properties of clay suspensions used under complex drilling conditions. Trudy Inst.khim.AN Azerb.SSR 17: 46-53 '59. (MIRA 13:4)

1. Institut khimii AN AzerSSR.
(Clay) (Oil well drilling fluids)

MISKARLI, A.K.; GURVICH, M.M.; RUSTAMOV, N.R.

Weighting agents and their weighting capacity. Azerb. neft. khoz. 38 no.3:11-13 Mr '59. (MIRA 12:6)
(Oil well drilling fluids)

GURVICH, M.M.; MISKARLI, A.K.

Powdered coal alkali reagents for low-viscosity drilling muds.
Azerb. neft. khoz. 38 no.8:16-18 Ag '59. (MIRA 13:2)
(Oil well drilling fluids) (Chemical tests and reagents)

GURVICH, M.M.; MISKARLI, A.K., doktor tekhn. nauk, prof., red.; KOSTYUKOVSKAYA, Ye., red. izd-va; ISMAILOV, T., tekhn. red.

[Carbon alkali reagent used in oil well drilling] Issledovanie ugleshchelochnogo reagenta, primeniaemogo v neftianom burenii. Baku, Izd-vo Akad. nauk Azerbaidzhanskoi SSR, 1960. 156 p. (MIRA 14:6)
(Oil well drilling fluids)

MISKARLI, A.K.; GURVICH, M.M.; ABDURAGIMOVA, L.A.

Colloidochemical method of preventing water filtration through porous (sandy) soils of irrigating systems. Azerb.khim.zhur. no.2:103-106 '60. (MIRA 14:8)

(Irrigation)

MISKARLI, A.K.; BAYRAMOV, A.M.

Stabilization mechanism of clays in water suspensions. Trudy Inst.khim. AN Azerb.SSR 18:24-30 '60. (MIRA 14:9)
(Clay)

IBRAGIMOV, I.I.; MISKARLI, A.K.

New protective colloids for the stabilization of dispersed systems. Trudy Inst.khim. AN Azerb.SSR 18:79-83 '60. (MIRA 14:9)
(Clay) (Surface active agents)

MISKARLI, A.K.; ZEMLYANSKAYA, V.Ya.; GASANOVA, T.G.

New protective colloids for the stabilization of clay systems.
Trudy Inst.khim. AN Azerb.SSR 18:84-89 '60. (MIRA 14:9)
(Clay) (Suspensions (Chemistry))

MISKARLI, A.K.; IBRAGIMOV, I.I.

Grape pomace alkali extract as a chemical reagent for processing clay suspensions. Azerb. neft. khoz. 39 no.3(405):17-19 Mr '60. (MIRA 14:9)

(Chemical tests and reagents)
(Wine and wine making--By-products)
(Oil well drilling fluids)

MISKARLI, A.K.; BAYRAMOV, A.M.; GASANOVA, T.G.

Mechanism of the stabilizing action of surface-active agents on polydisperse systems. Report No.3: Effect of amino acids and their sodium salts on the structural and mechanical properties of clay suspensions. Azerb. khim.zhur. no.3:83-90 '61. (MIRA 14:11)
(Amino acids) (Clay)

ZEMLYANSKAYA, V. Ya.; MISKARLI, A. K.

Stabilizing action of alkaline tannids on water suspensions of clays. Azerb. khim. zhur. no.4:75-83 '61. (MIRA 14:11)
(Tanning materials) (Clay)

MISKARLI, A.K.; IBRAGIMOV, I.I.

Influence of certain factors on the colloidal and chemical properties of drilling mud systems stabilized by alkaline extracts squeezed out from grapes. Azerb.khim.zhur. no.5: 77-83 '61. (MIRA 15:5)

(Drilling fluids)

MISKARLI, A.K.

Chemistry of colloids in the service of oil drilling. Trudy Inst.khim.AN Azerb.SSR 19:13-48 '61. (MIRA 14:10)
(Oil well drilling fluids)
(Colloids)

BAYRAMOV, A.M.; MISKARIL, A.K.

Investigating the possible use of alkali extracts from a tobacco plant as protective colloids for disperse clay systems. Trudy Inst.khim.AN Azerb.SSR 19:89-96 '61. (MIRA 14:10)

(Tobacco)
(Colloids)
(Clay)

MISKARLI, A.K.; ZEMLYANSKAYA, V.Ya.

Results of testing a new powerded chemical reagent of vegetable orgin. Azerb. neft. khoz. 40 no.1:22-23 Ja '61.
(Surface active agents) (MIRA 14:8)

MISKARLI, A.K.

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PHASE I BOOK EXPLOITATION SOV/6195

Nauchnaya konferentsiya institutov khimii Akademiy nauk Azerbaydshanskoy, Armyanskoy i Gruzinskoy SSR. Yerevan, 1957.

Materialy nauchnoy konferentsii institutov khimii Akademiy nauk Azerbaydzhanskoy, Armyanskoy i Gruzinskoy SSR (Materials of the Scientific Conference of the Chemical Institutes of the Academies of Sciences of the Azerbaydzhan, Armenian, and Georgian SSR) Yerevan, Izd-vo AN Armyanskoy SSR, 1962. 396 p. 1100 copies printed.

Sponsoring Agency: Akademiya nauk Armyanskoy SSR. Institut organicheskoy khimii.

Resp. Ed.: L. Ye. Ter-Minasyan; Ed. of Publishing House: A. G. Sikuni; Tech. Ed.: G. S. Sarkisyan.

PURPOSE: This book is intended for chemists and chemical engineers, and may be useful to graduate students engaged in chemical research.

COVERAGE: The book contains the results of research in physical, inorganic, organic, and analytical chemistry, and in chemical engineering, presented at the Scientific Conference held in Yerevan, 20 through 23 November 1957. Three reports of particular interest are reviewed below. No personalities are mentioned. References accompany individual articles.

Card ~~3/11~~ 2/2

ZEMLYANSKAYA, V.Ya.; MISKARLI, A.K.

Effect of the surface-active addition agents on the bound water content of aqueous dispersions of kaolinite clay. Azerb.khim.zhur. no.4:125-130 '63. (MIRA 17:2)

MISKARLI, A.K.; BAYRAMOV, A.M.

Mechanism of stabilization of clay systems. Azerb.khim.zhur. no.6: 85-92 '63. (MIRA 17:3)

MISKARLI, A.K.; GURVICH, M.M.; ABDURAGIMOVA, L.A.

Colloid and chemical method of controlling the flow of water in bound (clay) soils in irrigation systems. Dokl. AN Azerb. SSR 19 no.4:23-26 '63. (MIRA 16:12)

1. Institut khimii AN Azerbaydzhanskoy SSR. Predstavlano akademikom AN Azerbaydzhanskoy SSR V.R.Volobuyevym.

MISKARLI, A.K.; ZEMLYANSKAYA, V.Ya.

Effect of some surface-active agents on the deformation kinetics in aqueous dispersions of kaolinite clays. Dokl. AN Azerb. SSR 19 no.7:21-26 '63. (MIRA 17:12)

1. Institut khimii AN AzerSSR.

MISKARLI, A.K.; BAYRAMOV, A.M.

Effect of the sodium salts of some organic acids on the colloidal and chemical characteristics of aqueous clay dispersions. Kolloid.zhur. 25 no.3:341-347 My-Je '63. (MIRA 17:10)

1. Institut khimii AN Azerbaydzhanskoy SSR, Baku.

MISKARLI, A.K.; ZEMLYANSKAYA, V.Ya.

Effect of alkaline tanning materials on aqueous clay suspensions. Koll.zhur. 25 no.5:572-577 S-O '63. (MIRA 16:10)

1. Institut khimii AN AzerSSR, Baku.

ZAIDOVA, R.R.; MISKARLI, A.K.; BAYRAMOV, A.M.

Effect of sodium salts of some amino and hydroxy acids on the heat resistance of aqueous suspensions of kaolinite clays. Dokl. AN Azerb. SSR 20 no.12:9-14 '64. (MIRA 18:4)

1. Institut khimii AN AzerbSSR.

ZAIDOVA, R.R.; MISKARLI, A.K.; BAYRAMOV, A.M.

Effect of heat treatment on the adsorption of sodium salts of certain organic acids by kaolinite clay. Azerb. khim. zhur. no.1:83-87 '65. (MIRA 18:7)

1. Institut khimii AN AzerSSR.

BAYRAMO, A.M.; MISKARLI, A.K.

Effect of the cation exchange complex of a surface-active medium on the dispersity of caolinite clay suspensions. Koll. zhur. 27 no.2:145-150 Mr-Ap '65. (MIRA 18:6)

1. Institut khimii AN AzerbSSR, Baku.

GASANOVA, S.B.; ABDURAGIMOVA, L.A.; MISKARLI, A.K.

Effect of electrolytes on the electric properties of kaolin clay. Azerb. khim. zhur. no. 2:74-78 '65. (MIRA 18:12)

1. Institut khimii AN AzerSSR. Submitted Febr. 8, 1964.

MISKARLI, A.K.; BAYRAMOV, A.M.; GURVICH, M.M., red.

[New surfactants for oil well drilling] Novye poverkh-nostno-aktivnye reagenty dlia neftianogo bureniia. Baku, Izd-vo AN Azerbaidzhan.SSR, 1964. 162 p. (MIRA 17:12)

MISKARLI, A.K.; ZAIDOVA, R.R.

Effect of a surface-active medium on the thermostability of aqueous dispersions of kaolinite clay. Dokl. AN Azerb. SSR 20 no.9:17-22 '64. (MIRA 18:1)

1. Institut khimii AN AzerSSR. Predstavleno akademikom AN AzerSSR M.F. Nagiyevym.

MISKAROV, D.

ZHDANOV, V.; KHRISTOV, L.; MURAV'YEV, M.; RYZHOV, A.; VASHKOV, V.; FEDOSOVA, A. POGODINA, L.; KLECHETOVA, A.; SUHBOTIN, A.; ZAKHAROVA, Ye.; GANDEL'SMAN, B.; SAZONOVA, N.; ZHVAKINA, I.; KUDRINSKIY, I.; MISKAROV, D.; KHANENYA, F.

Professor A.N.Tregubov; obituary. Gig. i san. 21 no.10:63 O '56. (MLRA 9:11)

(TREGUBOV, ALEKSANDR NIKOLAEVICH, 1888-1956)

KABALALIYEV, Yu., inzh.; MISKARYAN, G., inzh.

Experimental investigations of materials used in geophysical cables. Prom.Arm. 6 no.1:54-57 Ja '63. (MIRA 16:4)

1. Armyanskiy filial Vsesoyuznogo nauchno-issledovatel'skogo instituta elektromekhaniki.
(Electric cables)

MISKARYAN, O.YE.

37633. Epidemicheskaya vspyshka malyarii v sele getap mikoyanskogo rayona armyanskoy SSR i yeye bystraya likvidatsiya. Trudy In-ta malyarii i med. parazitologii (M-vo zdravookhraneniya Arm. SSR), vyp. 4, 1949, S. 104-08

SO: Letopis' Zhurnal'nykh Statey, Vol. 37, 1949

MISKEDI, T.

Gardening in the Alfold; an investigation of the Association in Szeged. p. 335. AGRARTUDOMANY. (Micsurin Agrartudomanyi Egyesulet) Budapest. Vol. 8, no. 7, July 1956.

SOURCE: East European Accessions List (EEAL) Library of Congress. Vol. 5, No. 11, November 1956.

BUJDOSO, Erno, dr.; MEDVEGYEV, Vladimir; MISKEI, Mihaly

Radioisotopic tests at the Vogelbusch lye distillation stations.
Koh lap 96 no.12:566-571 D '63.

1. Femipari Kutato Intezet, Budapest.

BUJDOSO, Erno, dr.; MISKEI, Mihaly; ORMOS, Gyorgy

Examination of the behavior of zinc by radioactive isotopes during the stirring process of aluminate lyes. Koh lap 97 no.3:146-148 Mr'64

1. Femipari Kutato Intezet, Budapest.

BUJDOSO, Erno, dr.; MISKEI, Mihaly; CSUKAS, Gyorgy

Testing the continuous precipitation of aluminate lye by radioactive isotopes. Koh lap 97 no.9:419-422 S '64.

1. Research Institute of the Metal Industry, Budapest.

L 34216-66 RM/DS

ACC NR: AP6026090 SOURCE CODE: HU/0014/66/000/003/0138/0140

23
B

AUTHOR: Bujdoso, Erno (Doctor); Kiskei, Mihaly; Ormos, Gyorgy

ORG: Research Institute for the Metal Industry, Budapest (Femipari Kutato Intezet)

19

TITLE: Purification of radioactive isotope Zn-65 with ion-exchange chromatography

SOURCE: Kohaszati Lapok, no. 3, 1966, 138-140

TOPIC TAGS: zinc, isotope, ion exchange chromatography, gamma spectrum, chemical purity

ABSTRACT: Experiments for the purification of radioactive zinc isotope Zn-65 samples with 197, 210, and 185 mC./g. specific activity in 0.2 mg./ml. concentration (in 8 M HCl) by ion-exchange chromatography were described. The column employed was 160 mm. long and had a diameter of 10 mm. It was packed with Varion AP polystyrene-base ion-exchange resin of a particle size of 0.063-0.2 mm. (1.3 mval./ml.). The eluent was 20-40 ml. 8 M HCl, containing 5-10 mg. active zinc, 6 mg. cobalt, and 6 mg. silver carrier. Ion-exchange chromatograms and gamma-ray spectra for the purified product were presented and discussed to illustrate the effectiveness of the procedure. The product was radiochemically pure. A relative enrichment of Co-60 was noted. Orig. art. has: 5 figures and 2 tables. [JPRS: 36,646]

SUB CODE: 07, 18, 20 / SUBM DATE: none / ORIG REF: 009 / SOV REF: 001

OTH REF: 002

UDC: 54.02:661.183.1:542.949:545.844

Card 1/1

0976 1115

L 47240-66 EWP(t)/ETI IJP(c) JD

ACC NR: AP6034298 SOURCE CODE: HU/0014/66/000/006/0281/0283

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B

BUJDOSO, Erno, Dr., Diplomate Physicist, and MISKEI, Mihaly, Diplomate Chemical Engineer, of the Research Institute for the Metal Industry (Femipari Kutato Intezet) in Budapest.

"Radiochemical Separation of Ag, Au, Cd, Co, Fe, In, and Zn Trace Contaminants in Gallium"

Budapest, Kohaszati Lapok, Vol 99, No 6, Jun 1966, pp 281-283.

Abstract: The separation technique described employs radioactive tracer isotopes for the purposes of activation-analytical methods. The separation itself involves extraction with isopropyl ether and ion-exchange chromatography using Varion AP resin in 0.2 - 0.063 mm. particle size in a 8-m. by 18-cm. column. The instruments and techniques involved were described and some results obtained were presented and discussed. The method is convenient and accurate. Orig. art. has: 6 figures and 2 tables. [JPRS:36,867]

TOPIC TAGS: gallium, trace analysis, radiation chemistry, chromatography

SUB CODE: 07,11 / SUBM DATE: none / ORIG REF: 001 / OTH REF: 003

UDC: 669.871:539.219:661.183.1:545.844

Card 1/1 gdr

0921 0019

S/796/62/000/003/002/019

AUTHORS: Stolyarova, Ye. L., Chukhin, S.G., Konstantinov, I. Ye., Mis'kevich, A.I.

TITLE: Investigation of the angular-spectrum distributions of scattered γ-radiation in protective barriers in the case of a plane single-directional source.

SOURCE: Moscow. Inzhenerno-fizicheskiy institut. Pribory i metody analiza izlucheniy. no.3. 1962, 15-36.

TEXT: A theoretical and experimental approach is undertaken to obtain systematic knowledge on the process of transition of γ-rays through protective barriers of finite dimensions and not, as heretofore, through a homogeneous and infinite medium from an isotropic punctuate source or from a plane directional source. The process is characterized in terms of the γ-quanta flux density $N(\vec{r},\Omega,E)$, customarily termed the angular energy distribution of the radiation. The function N permits a determination of a number of important characteristics of a multiply scattered radiation, such as: (1) The energy-intensity spectrum; (2) the angular intensity distribution; (3) the energy-accumulation (storage) factor. A review is made of existing experimental investigations reported by 5 Western and 2 Soviet group of authors. The present investigation comprises measurements with scintillation-type γ-spectrometers of the angular energy distributions at points lying in the far (downstream)

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boundary plane of a barrier. Co^{60} sources were used with Al, Fe, and Pb media. Angular intensity distributions of the scattered γ-radiation were obtained, and a comparison was made between the differential γ-ray energy spectra obtained with an Al barrier of a thickness $\mu_0 d = 1$ and 3.8 and those obtained theoretically for an infinite geometry. The desired function N depends on the barrier thickness, the angle θ between the direction of the primary γ quanta and the direction of the scattered γ quanta near the given point, and on the energy E of the scattered γ quanta. The experimental equipment used, consisting of a fixed NaI(Tl) crystal, 70x48 mm, and a rotatable source-and-barrier rig, is described. The spectrometer effectiveness, its resolution, and details of the photoamplifier and the 100-channel pulse-amplitude analyzer ("Raduga") are reported. The barrier dimensions were 75x75 cm. The plane, single-directional Co^{60} source was simulated by a punctuate source located at a fairly great distance (to obtain nearly uniform radiation intensity on the barrier). Experimental results and data-processing methods. The amplitude distribution of the impulses was measured for a finite number of scattering angles. Corrections were introduced to obtain a true γ-ray spectrum: 1. The "dead" time of the spectrometer, which was a specific defect of the 100-channel amplifier employed, in which the "dead" time was a function of the amplitude of the input impulse. 2. The background, obtained by subtracting the impulse spectrum found by closing the detector collimator with a lead rod from the impulse spectrum

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measured with the collimator open. 3. The true γ-quantum spectrum as obtained from the measured impulse-amplitude distribution. The solution of the integral equation involved in this problem has been accomplished variously (Lidén, K., et al., Arkiv för Fys., no. 7, 1954, 5; Whyte, G.N., NBS Report no. 1003, 1952) and is here performed by transforming the integral equation into a system of interrelated linear equations. The method of this analysis of the spectrum, including the determination of the matrix elements required therefor and the construction of the matrix, is explained in detail. 4. The spectrometer-effectiveness correction, including the effectiveness of the spectrometer at the photopeak, i.e., the ratio of the number of impulses at the photopeak by the number of γ-quanta that impinge on the crystal, and the correction for the effective solid angle of the collimator. 5. The energy-resolution correction. The results of the measurements are set forth. It was found that all angular energy distributions of the scattered γ-radiation, regardless of the atomic number Z and the angle θ, have a maximum that corresponds to the energy of single scatter over a minimal angle. The shape of the angular energy distribution indicates that the energy-dissipating role of multiple scatter increases with increasing angle θ and decreasing atomic number Z of the medium. Substantial differences between experimental and theoretical spectra occurred for low energies only; this is attributed to the lack of backscatter with real barrier geometry. In the low-energy range an atomic-number-dependent multiple-scatter

peak was observed; this peak was shifted toward the higher energies with increasing atomic number. In Fe and Pb an exponential dependence of the angular distribution was confirmed. A comparison was made between the energy-intensity spectra of Al and the theoretically calculated spectra of γ-radiation scattered in an infinite aqueous medium (Goldstein, H., et al., U.S.A. AEC Report no. 40, 1954, 3075)*. There are 6 figures and 11 references (3 Russian-language Soviet and 8 English-language).

ASSOCIATION: None given.

*Abstracter's note: Presumably AEC Report NYO-3075, 1954.

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33232

S/089/62/012/002/003/013
B102/B138

26.2244

AUTHORS: Zvonov, N. V., Mis'kevich, A. I., Rogozhkin, I. V., Tereshchenko, V. I., Turkov, Zh. I., Utkin, V. P.

TITLE: Fast neutron energy spectrum and thermal neutron flux distribution in the experimental hole of a ВВР (VVR) reactor

PERIODICAL: Atomnaya energiya, v. 12, no. 2, 1962, 116 - 122

TEXT: Threshold reactions, leading to formation of gamma-active nuclei, were used to study neutron spectra. A scintillation counter with NaI(Tl) crystal, ФЭУ-13 (FEU-13) photomultiplier and a 100-channel pulse-height analyzer was used to record gamma-radiation. Al, Fe, Si, Ti, Ni, Co, Mg, Zn, and Cu were used as indicator elements for (n,p) reactions, Al for (n,α) reactions and In, Hg, Pb, Ag, and Ba for inelastic (n,n') reactions in which longlife (≥ 1-2 min) metastable levels are formed. Low threshold energy is typical of this kind of reaction. For $In^{115}(n,n')$ it is 335 kev. The usual threshold indicator technique was used. The spectral distribution of neutrons was determined from the equations

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S/089/62/012/002/003/013
B102/B138

Fast neutron energy spectrum...

$A_i = \int_{E^i_{thr}}^{\infty} \Phi(E)\sigma^i_{act}(E)dE$, i = 1,2...n; i is the indicator index, n the number of indicators, $\Phi(E)$ flux of neutrons of given energy, $\sigma_{act}(E)$ activation cross section, E_{thr} threshold energy. If the real cross section $\sigma^i_{act}(E)$ is substituted by an ideal one, at a certain threshold E^i_{eff} there will be a jump from zero to σ^i_o and $A_i = \sigma^i_o \int_{E^i_{eff}}^{\infty} \Phi(E)dE$ is obtained. σ^i_o and E^i_{eff} may be chosen arbitrarily if only the upper equations are fulfilled. σ^i_o was taken as the mean of $\sigma^i_{act}(E)$ and E^i_{eff} was determined from these equations. The effective thresholds E_{eff}, effective cross sections σ_o and integral neutron fluxes for $E > E_{eff}$, 100 kw and a channel width of 130 mm were calculated numerically. The thermal neutron flux distributions were measured vertically and radially by means of a plate (4·5 mm) and a

Card 2/3

disc (19 mm). The neutron flux in the center of the channel was measured at the level of the middle of the core with a Cu foil of 0.1415 g/cm^2. With an empty channel width of 130 mm and 100 kw the flux was $4.5 \cdot 10^{11}$ n/cm^2·sec. Comparison with other results shows that the same dependence of thermal neutron flux on core distance obtains for both water and concrete. There are 5 figures, 1 table, and 18 references: 3 Soviet and 15 non-Soviet. The four most recent references to English-language publications read as follows: W. Meinke. Nucleonics, 17, No. 9, 86, 1959; P. Kruger. Nucleonics, 17, No. 6, 116, 1959; R. Bullock, R. Moore. Phys. Rev. 119, No. 2, 721, 1960; R. Rochlin. Nucleonics, 17, No. 1, 54, 1959

SUBMITTED: April 25, 1961

Card 3/3

LYUKSEMBURG, Roza; MIS'KEVICH, L.R., mladshiy nauchnyy sotrudnik [translator]; CHEKHUTOVA, V., red.; NIZHNYAYA, S., red.; CHEPELEVA, O., tekhn.red.

[Introduction to political economy] Vvedenie v politicheskuiu ekonomiiu. Moskva, Izd-vo sotsial'no-ekon.lit-ry, 1960. 324 p. Translated from the German. (MIRA 13:8)

1. Institut marksizma-leninizma pri TSentral'nom komitete Kommunisticheskoy partii Sovetskogo Soyuza (for Mis'kevich).
(Economics)

24.5600

37862
S/056/62/042/005/005/050
B125/B108

AUTHORS: Batrakov, G. F., Mis'kevich, O. R., Troynar, Ye.

TITLE: Measurement of surface tension between the superconducting and the normal phase

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 42, no. 5, 1962, 1171 - 1172

TEXT: The surface tension was determined in tin at the interface between the superconducting and the normal phase. For this purpose, the period of the regular structure of the intermediate state in a transverse magnetic field at various temperatures was measured. According to L. D. Landau (ZhETF, 7, 371, 1937), normal and superconducting phases alternate in the said structure. The magnetic field structure was measured with ferromagnetic powder and with bismuth micrometric instruments on the surface of three tin single crystals and inside a 100μ wide slit. In all experiments, the intermediate state was produced by reducing the temperature and subsequently increasing the magnetic field to 0.9 H_{crit}. The experimental results became clearer and more regular when a slight current

Card 1/2

S/056/62/042/005/005/050
B125/B108

Measurement of surface tension...

passed through the specimen. The quantity $\Delta = \sigma_{ns}(8\pi/H^2_{crit})$ which increases with temperature was measured. Results agree with those of other authors. σ_{ns} is the surface tension at the interface between the normal and the superconducting phase. There are 2 figures.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet (Moscow State University)

SUBMITTED: December 8, 1961

Card 2/2

MISKEY, K.

Jeno Faller's A magyar banyagepesites uttorol a XVIII. szazadban (Hungarian Pioneers of Mechanization in Mining in the 18th Century); a book review. P. 420

Vol. 13, no. 4, 1954, Budapest, Hungary KOZLEMENYEI

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 5, No.3, March, 1956

L 1173-66 EWT(m) DIAAP

ACCESSION NR: AT5025207 HU/2502/64/042/004/0433/0446

AUTHOR: Buidoso, Erno (Buydosho, E.)(Doctor)(Budapest); Medwedew, Wladimir (Medvedev, V.)(Budapest); Miskey, Mihaly (Mishkei, M.)(Budapest) 39

TITLE: Investigation of a liquor-evaporating apparatus of the vogelbusch type by the radioactive isotope technique 19

SOURCE: Academia scientiarum hungaricae. Acta chimica, v. 42, no. 4, 1964, 433-446

TOPIC TAGS: radio isotope, liquid flow, flow rate, heat transfer, chemical laboratory apparatus

Abstract: [German article]The flow of liquid in a four-stage Vogelbush-type evaporator was followed with the aid of radioactive isotopes. The experiments included runs with clear liquids and with slurries. A relationship between the flow rate, the liquor level height, and the heat transfer factor was established from which it was possible to calculate the mixing coefficient and the time required for 50% passage.
Orig. art. has 13 figures, 6 formulas, and 3 tables.

ASSOCIATION: Forschungsinstitut fur Nichteisermetalle, Budapest (Research Institute for Non-Ferrous Metals)

SUBMITTED: 17Dec63 ENCL: 00 SUB CODE: GC, NP

NO REF SOV: 000 OTHER: 004 JPRS

Card 1/1

MISKI, Karoly (Budapest)

Utilization of the Pecs mine methane. Kem tud kozl MTA 16 no.1:133 '61.

1. Vegyimuveket Tervezo Vallalat, Budapest.

(Methane) (Hungary—Mines and mineral resources)

MISKI, Karoly, okleveles vegyeszmernok; BAUMANN, Jozsef; BUNYITAI, Janos, dr.; MORY, Bela, dr.; GALAMBOS, Istvan

Significance of the hydrocarbon-based town gas production in Hungary. Energia es atom 17 no.1:15-17 Ja'64.

1. Vegyimuveket Tervezo Vallalat (for Miski). 2. Soproni Gazgyar (for Baumann). 3. Orszagos Koolaj- es Gazipari Troszt (for Bunyitai). 4. Szegedi Gazgyar (for Galambos).

L 38332-66 EWT(d)/T IJP(c)

ACC NR: AP6027996 SOURCE CODE: CZ/0045/66/000/001/0045/0052

24
B

AUTHOR: Miski, Ladislav (Bratislava)

ORG: CSAV; Mathematics Institute, SAV, Bratislava (Matematicky ustav, SAV)

TITLE: Darboux property for functions

SOURCE: Matematicko-fyzikalny casopis, no. 1, 1966, 45-52

TOPIC TAGS: function theory, partial derivative

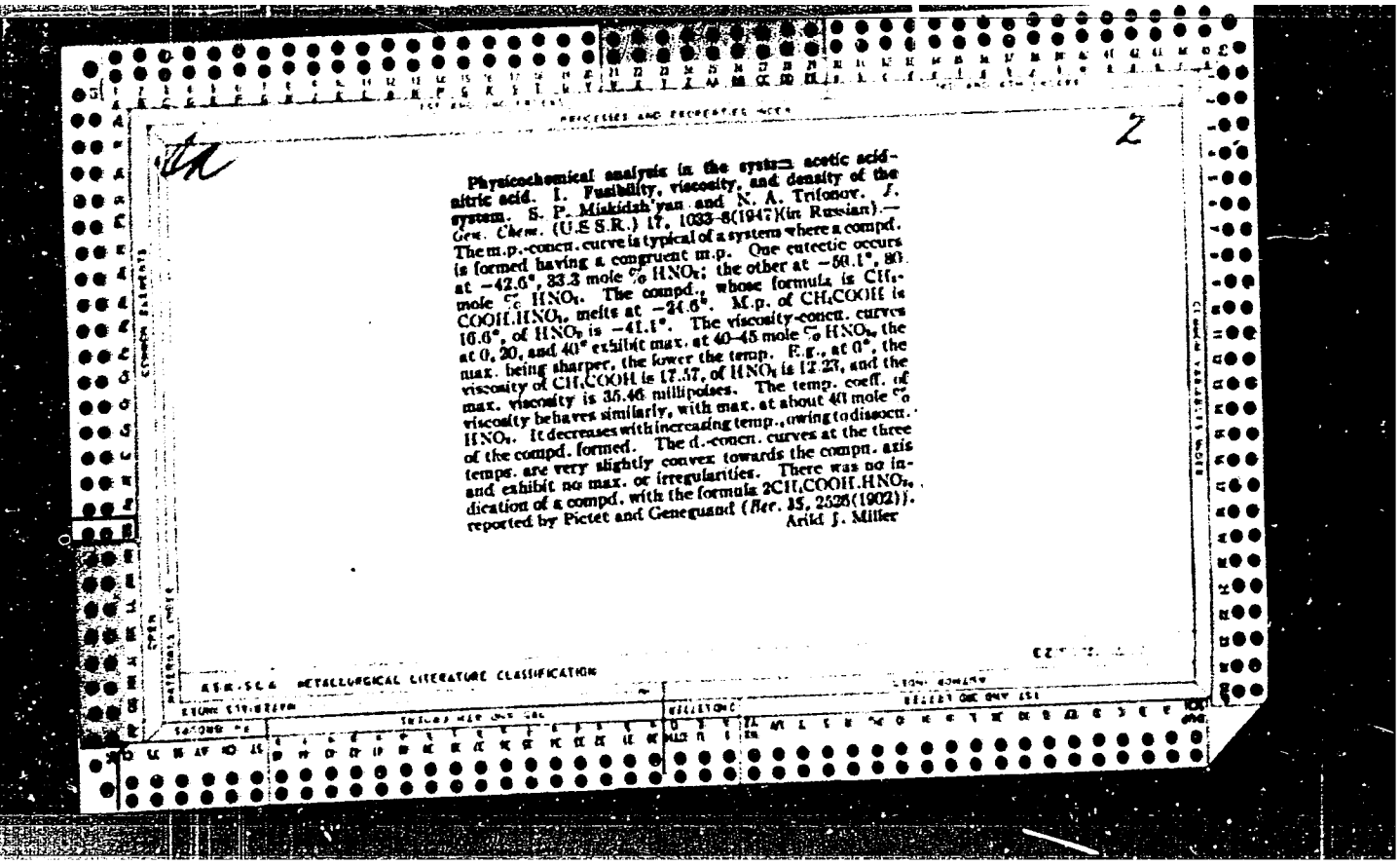
ABSTRACT: The paper presents a proof of the equivalence of two definitions of the Darboux property, a theorem on the Darboux property for functions of several variables having the Darboux property for each variable separately and a theorem on the Darboux property $\partial f \partial f/\partial x$ for the function f(x, y). [Based on author's Eng. abst.] [JPRS: 36,845]

SUB CODE: 12 / SUBM DATE: 20Jan65 / OTH REF: 003

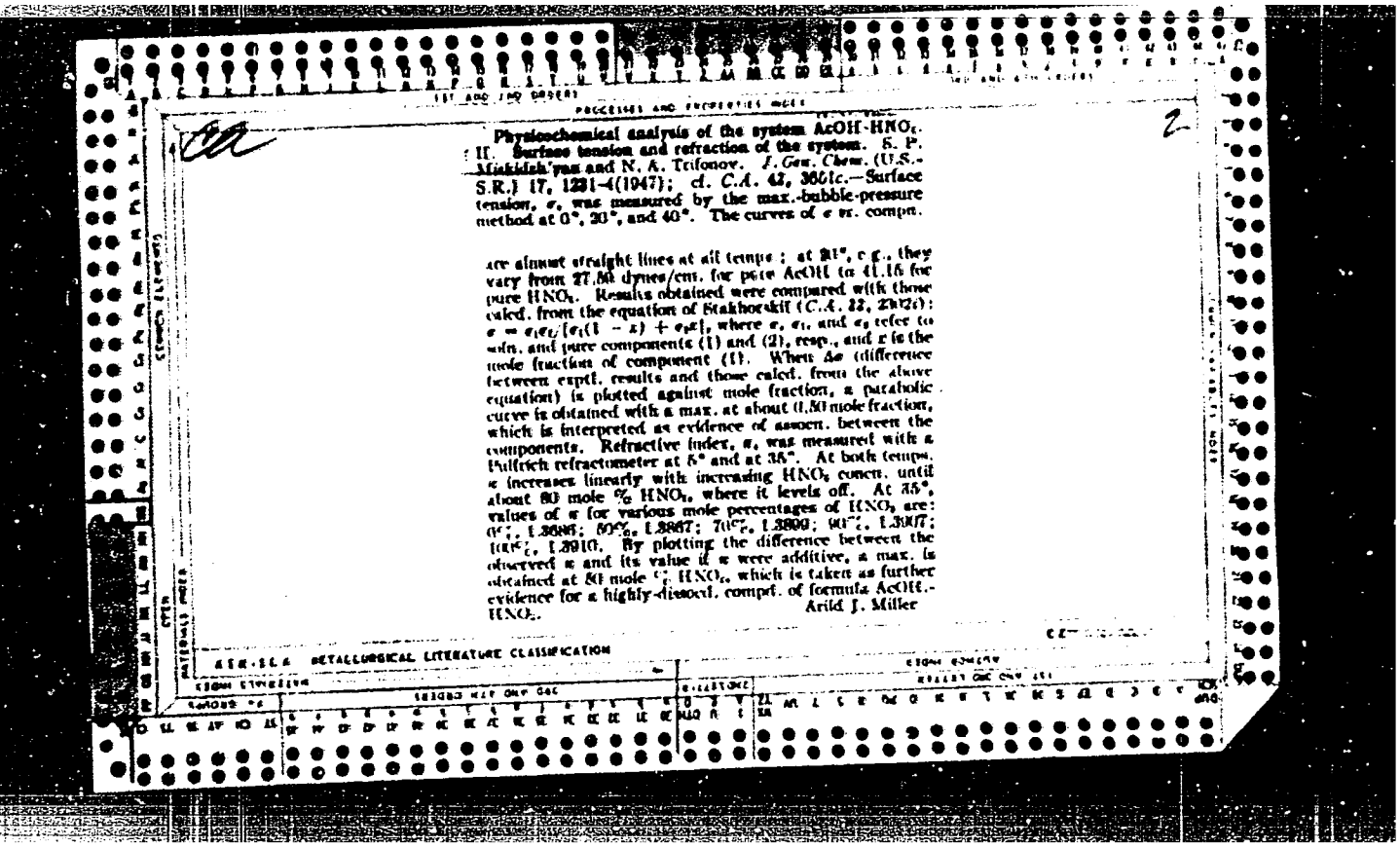
ns

Card 1/1

0917 1212

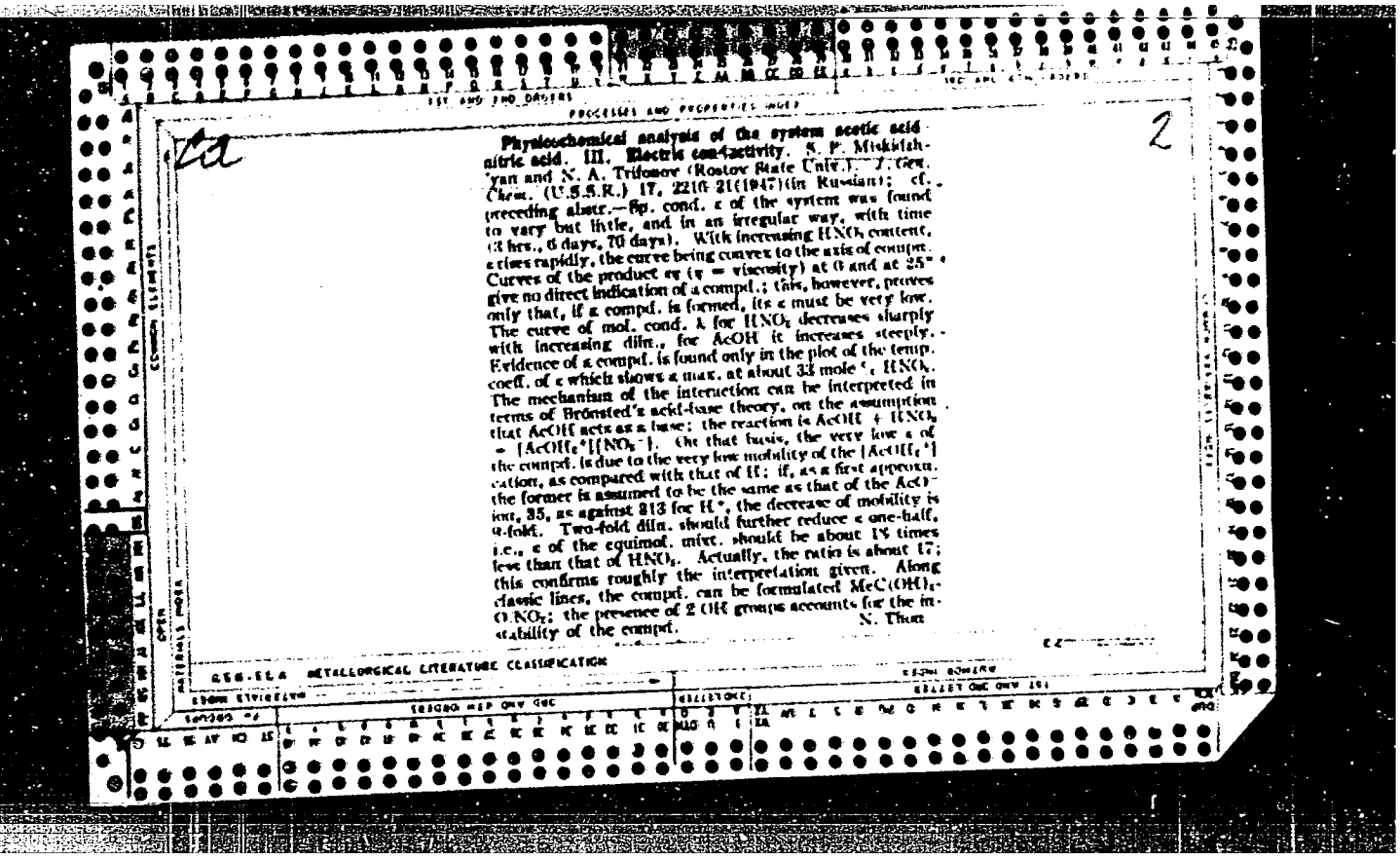


Physicochemical analysis in the system acetic acid–nitric acid. I. Fusibility, viscosity, and density of the system. S. P. Miskidzh'yan and N. A. Trifonov. *J. Gen. Chem.* (U.S.S.R.) 17, 1033–8(1947)(in Russian).—The m.p.-concn. curve is typical of a system where a compd. is formed having a congruent m.p. One eutectic occurs at −42.6°, 33.3 mole % HNO_3; the other at −50.1°, 80 mole % HNO_3. The compd., whose formula is $CH_3COOH.HNO_3$, melts at −24.6°. M.p. of CH_3COOH is 16.6°, of HNO_3 is −41.1°. The viscosity-concn. curves at 0, 20, and 40° exhibit max. at 40–45 mole % HNO_3, the max. being sharper, the lower the temp. E.g., at 0°, the viscosity of CH_3COOH is 17.57, of HNO_3 is 12.23, and the max. viscosity is 35.46 millipoises. The temp. coeff. of viscosity behaves similarly, with max. at about 40 mole % HNO_3. It decreases with increasing temp., owing to dissocn. of the compd. formed. The d.-concn. curves at the three temps. are very slightly convex towards the compn. axis and exhibit no max. or irregularities. There was no indication of a compd. with the formula $2CH_3COOH.HNO_3$, reported by Pictet and Geneguand (*Ber.* 35, 2528(1902)).
Arild J. Miller



Physicochemical analysis of the system AcOH-HNO_3. II. Surface tension and refraction of the system. S. P. Mikhlish'yan and N. A. Trifonov. *J. Gen. Chem.* (U.S.S.R.) 17, 1231-4(1947); cf. *C.A.* **43**, 3661c.—Surface tension, σ, was measured by the max.-bubble-pressure method at 0°, 20°, and 40°. The curves of σ vs. compn. are almost straight lines at all temps; at 20°, e.g., they vary from 27.80 dynes/cm. for pure AcOH to 41.16 for pure HNO_3. Results obtained were compared with those calcd. from the equation of Stakhorskii (*C.A.* **33**, 2302c): $\sigma = \sigma_1\sigma_2/[\sigma_1(1 - x) + \sigma_2 x]$, where σ, σ_1, and σ_2 refer to soln. and pure components (1) and (2), resp., and x is the mole fraction of component (1). When $\Delta\sigma$ (difference between exptl. results and those calcd. from the above equation) is plotted against mole fraction, a parabolic curve is obtained with a max. at about 0.50 mole fraction, which is interpreted as evidence of assocn. between the components. Refractive index, n, was measured with a Pulfrich refractometer at 5° and at 35°. At both temps. n increases linearly with increasing HNO_3 concn. until about 80 mole % HNO_3, where it levels off. At 35°, values of n for various mole percentages of HNO_3 are: 0%, 1.3686; 50%, 1.3867; 70%, 1.3890; 90%, 1.3917; 100%, 1.3910. By plotting the difference between the observed n and its value if n were additive, a max. is obtained at 50 mole % HNO_3, which is taken as further evidence for a highly-dissocd. compd. of formula AcOH.-HNO_3.

Arild J. Miller



Physicochemical analysis of the system acetic acid-nitric acid. III. Electric conductivity. S. P. Mikhitarian and N. A. Trifonov (Rostov State Univ.). J. Gen. Chem. (U.S.S.R.) 17, 2216-21(1947)(in Russian); cf. preceding abstr.—Sp. cond. κ of the system was found to vary but little, and in an irregular way, with time (3 hrs., 6 days, 70 days). With increasing HNO_3 content, κ rises rapidly, the curve being convex to the axis of concn. Curves of the product $\kappa\eta$ (η = viscosity) at 0 and at 25° give no direct indication of a compd.; this, however, proves only that, if a compd. is formed, its κ must be very low. The curve of mol. cond. λ for HNO_3 decreases sharply with increasing dilu., for AcOH it increases steeply. Evidence of a compd. is found only in the plot of the temp. coeff. of κ which shows a max. at about 33 mole % HNO_3. The mechanism of the interaction can be interpreted in terms of Brönsted's acid-base theory, on the assumption that AcOH acts as a base; the reaction is $AcOH + HNO_3 = [AcOH_2^+][NO_3^-]$. On that basis, the very low κ of the compd. is due to the very low mobility of the $[AcOH_2^+]$ cation, as compared with that of H; if, as a first approxn. the former is assumed to be the same as that of the AcO^- ion, 35, as against 213 for H^+, the decrease of mobility is 6-fold. Two-fold dilu. should further reduce κ one-half, i.e., κ of the equimol. mixt. should be about 1/8 times less than that of HNO_3. Actually, the ratio is about 1/7; this confirms roughly the interpretation given. Along classic lines, the compd. can be formulated $MeC(OH)_2O.NO_2$; the presence of 2 OH groups accounts for the instability of the compd. N. Thon

2

CA

Lab. Thermochem.

Physicochemical analysis of the system acetic acid–nitric acid. IV. Heats of mixing. S. P. Miskidzh'yan, N. A. Trifonov, N. N. Feodos'ev, and N. I. Balandina (Rostov-on-Don State Univ., U.S.S.R.). *Zhur. Obshchei Khim.* 19, 441-3(1949); *J. Gen. Chem. U.S.S.R.* 19, 893-6(1949)(English translation); cf. *C.A.* 43, 925c. The heat of mixing, in cal./g. mol. of mixt., goes through a max. of 1188.0 at 80 mol. %. This shows chem. interaction and formation of an equimol. complex. The thermochem. app. is described. **V. Boiling points of the system.** S. P. Miskidzh'yan, N. A. Trifonov, and N. I. Balandina. *Zhur. Obshchei. Khim.* 19, 444-7; *J. Gen. Chem. U.S.S.R.* 19, 897-9(1949)(English translation).—Refractive indexes at 24°, b.ps. at 756 mm., and corresponding liquid and vapor compns. are given. There is a max. azeotrope at 128.6° and about 82 mol. % HNO_3. The b.p. app. is described. Worden Waring

Decomposition voltage of concentrated acid. E. B.
Mikhel'man and B. I. Vigalter (...) —The decompn.
Zhur. Priklad. Khim. 23, 1175-81(...) was detd. at 25° pri-
potential of concd. H_2SO_4 (5-91%) was detd. at 25° pri-
marily to confirm the postulate that it was a function of the
concn. Smooth and platinized Pt electrodes of large enough
dimensions to reduce polarization to a min. were used. In
addn. to the known 2 decompn. potentials (Skobets and
Kudra; *C.A.* 41, 2873a) a third decompn. potential was
noted and with the platinized Pt electrode and 91% acid a
4th decompn. potential was observed. The first 3 decompn.
potentials increased with the concn. of the acid; the 3rd
one was almost const. with smooth Pt electrodes. The 4th
decompn. potential was accounted for by the observation
that at platinized electrodes in 91% acid, H reduced the
acid at the cathode to S and H_2S. The first 3 decompn.
potentials were anodic effects and were due to the formation
of different ions: OH^- at lower concns., SO_4^{--} at medium,
and HSO_4^- at higher concns. I. Bencowitz

MISKIDZH'YAN, S.P.

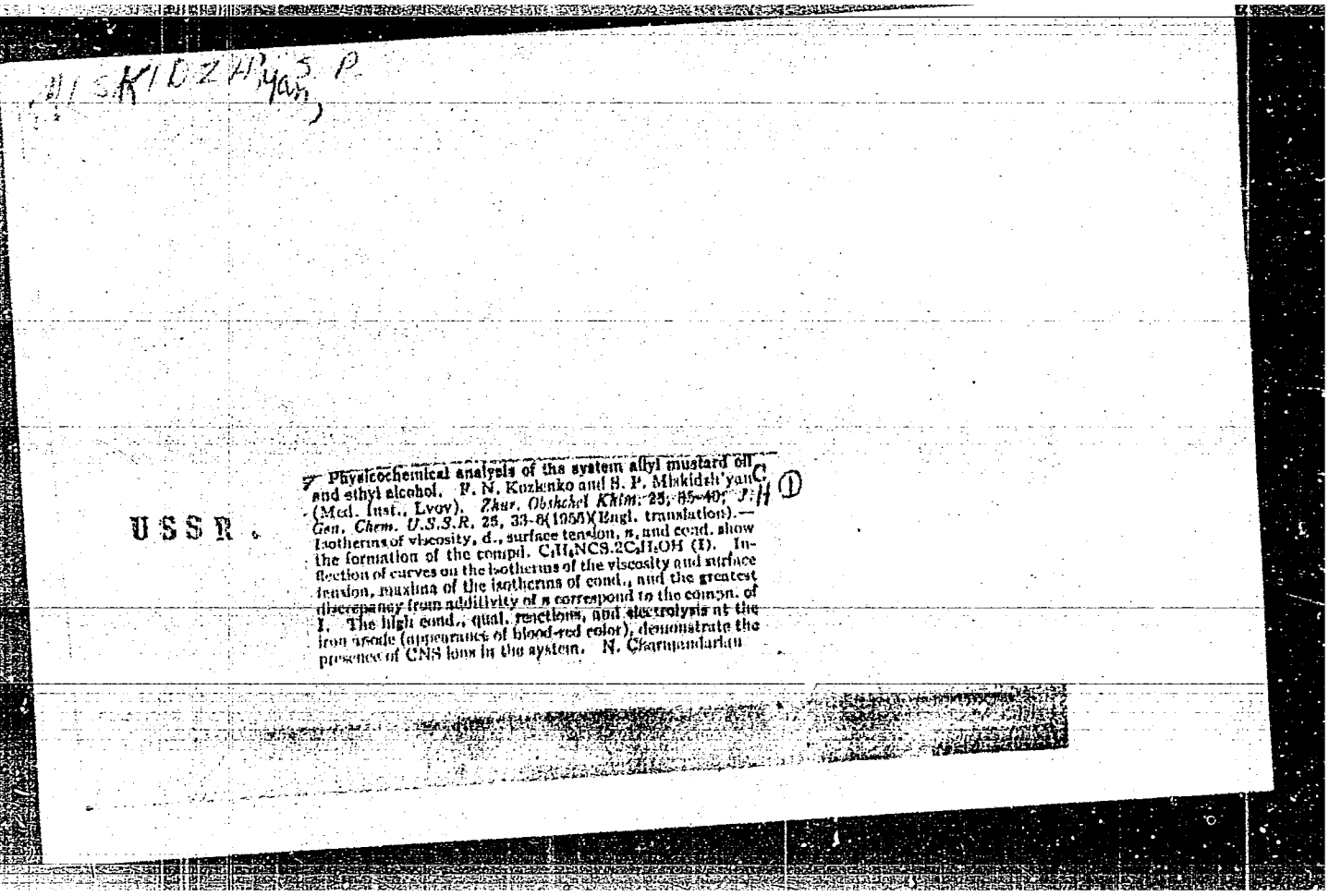
MISKIDZH'YAN, S.P.; KOZLENKO, F.N.

Electrolytic dissociation in nonaqueous systems. Allyl mustard oil - piperidine. Soob.o nauch.rab.chl.VKHO no.1:37-45 '53. (MIRA 10:10)
(Dissociation) (Isothiocyanic acid) (Piperidine)

MISKIDZHYAN, S.P.

Chemical Abstracts
May 25, 1954
Electrochemistry

Electrolytic dissociation in nonaqueous systems. I. The stannic chloride-ethyl acetate system. S. P. Miskidzh'yan. (Chkalov Med. Inst.). Zhur. Obshchei Khim. 23, (1953).—Mixts. of $SnCl_4$ (20 and 80 mol. %) and EtOAc were electrolyzed with a current of 3-5 ma. at the beginning and 15-20 ma. at the end, lasting 8 hrs.-2 days, at 16-19°. Anodic and cathodic solns. were periodically analyzed. It was concluded that the mol. complex formed was of the form $(SnCl_4.2CH_3COOC_2H_5)_n$. This was supported by the high max. of the viscosity of the system at 1:3 mol. ratio of $SnCl_4$ to the acetate. A theoretical discussion formulating the process of dissocn. was given based on the following exptl. observations: at the cathode metallic Sn was formed at the beginning, and Sn plus $SnCl_2$ at the end; no gas was formed at the anode, only a few occasional bubbles at the cathode at the end; the ds. of solns. at the cathode were lower than those at the anode. I. Bencowitz



MISKIDZHIYAN, P.

USSR

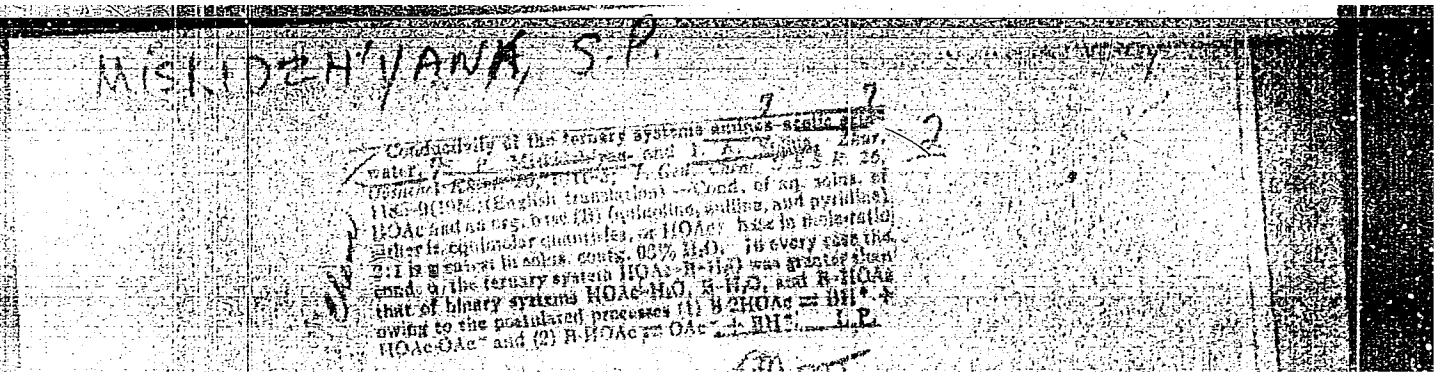
Physicochemical analysis of the system allyl mustard oil and ethyl alcohol. P. N. Kuzkenko and S. P. Miskidzh'yan (Med. Inst., Lvov). *Zhur. Obshchei Khim.* 25, 35-40; *J. Gen. Chem. U.S.S.R.* 25, 33-8(1955)(Engl. translation).—Isotherms of viscosity, d., surface tension, *n*, and cond. show the formation of the compd. $C_3H_5NCS.2C_2H_5OH$ (I). Inflection of curves on the isotherms of the viscosity and surface tension, maxima of the isotherms of cond., and the greatest discrepancy from additivity of *n* correspond to the compn. of I. The high cond., qual. reactions, and electrolysis at the iron anode (appearance of blood-red color), demonstrate the presence of CNS ions in the system. N. Clarmandarian

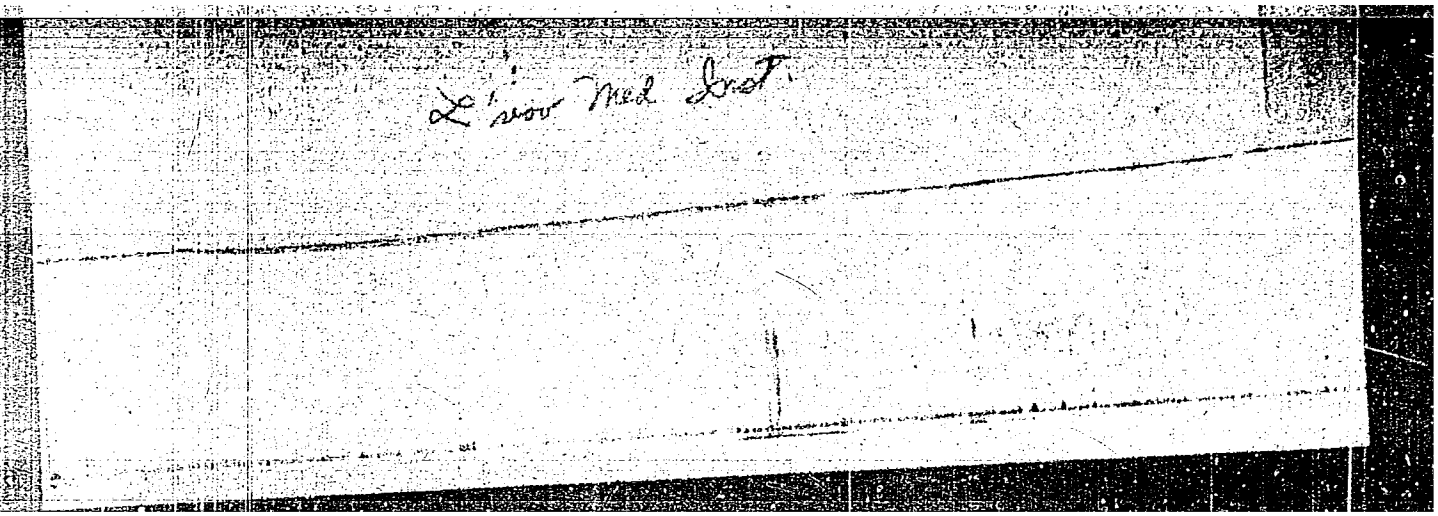
C (1) H

MISKIDZH'YAN,S.P.

Electrolytic dissociation in nonaqueous systems. Part 3. The system: aniline-acetic acid. Zhur.fiz.khim.29 no.5:855-859 My'55. (MLRA 8:12)

1. L'vovskiy meditsinskiy institut
(Dissociation) (Systems (Chemistry))





MISKIDZH'YAN, S. P.

Electrolytic dissociation in nonaqueous systems. IV. System aniline-allyl mustard oil. S. P. Miskidzh'yan. Zhur. Obshchei Khim. 26, 1045-50; J. Gen. Chem. U.S.S.R. 26, 1181-6(1956)(Engl. translation); cf. C.A. 51, 1763c.— Heating of 1:1 aniline (I)-allyl isothiocyanate (II) mixts. at 90°-120° resulted in the formation of CNS^- accompanied by an increase of cond. Extn. of the mixt. with EtOH yielded a residue of $PhNHCSNHCH_2CH:CH_2$ and a brown ext. which, after evapg. EtOH and treating the resulting residue with NH_3, yielded NH_4CNS. A reaction mechanism was postulated. Ivan Pascal

Miskidzhyan S.P.

USSR/Thermodynamics - Thermochemistry. Equilibria. B-8
Physical-Chemical Analysis. Phase Transitions.

Abs Jour : Referat Zhur - Khimiya, No 6, 1957, 18525

Author : S.P. Miskidzhyan, S.S. Kirilyuk.
Title : Study of Viscosity, Density and Electrical Conductivity of Quinoline - Acetic Acid System.

Orig Pub : Zh. obshch. khimii, 1956, 26, No 5, 1350-1355

Abstract : The viscosity and density of the system quinolime (I) - acetic acid (II) at 0 and 20° was measured, and the value of the temperature factor of viscosity was computed. The specific electrical conductivity of the system I - II - inert solvent (CH_3OH free of water) was measured at 20± 0.1° at isoconcentrates 2.0, 1.0, 0.1 and 0.01 M of I and II in methanol. It was found that the isoterms of viscosity and density have maxima corresponding to 33 mol. % of I; temperature drop makes the maxima sharper, but does not shift them. The isoterms of the specific

Card 1/2

USSR/Thermodynamics - Thermochemistry. Equilibria. B-8
Physical-Chemical Analysis. Phase Transitions.

Abs Jour : Referat Zhur - Khimiya, No 6, 1957, 18525

electrical conductivity at 2.0 and 1.0 M show a maximum that also corresponds to the relation I : II = 1 : 2; a second maximum corresponding to the relation 1 : 1 appears on the isoterms of the specific electrical conductivity at the transition to isoconcentrates 0.1 and 0.01 M. The existence of compounds of the compositions $C_9H_9N.CH_3COOH$ and $C_9H_3N.2CH_3COOH$ in the system I - II

was deducted.

Card 2/2

MIGKIDZH'YAN, S.P.

Refractometric method for determining cordiamine. Apt.delo 6 no.1: 48-50 Ja-F '57. (MLRA 10:3)

1. Iz laboratorii fizicheskoy i kolloidnoy khimii L'vovskogo meditsinskogo instituta.
(CORDIAMINE)

MISKIDZH'YAN, S. P.

Distr: 4E4j

Electrolytic dissociation in nonaqueous systems. V. Pyridine-allyl mustard oil system. S. P. Miskidzh'yan (Med. Inst., Lvov). Zhur. Obshchei Khim. 27, 11-5 (1957); cf. C.A. 51, 8028b.—It was shown that in storage or during prolonged heating the system of pyridine-CH_2:$CHCH_2NCS$ undergoes a reaction which yields the quaternary pyridinium salt with CNS anion; this was isolated as a dark tarry liquid, d_{20} 1.2010, n_D^{20} 1.6225, contg. 98-100% N-allylpyridinium thiocyanate. The values of viscosity, cond., and density of the system are tabulated over a period of time. The property-compn. diagrams are shown which indicate clearly the formation of an ionized species.

G. M. Kosolapoff

4

1

Mikaelyan, S. P.

7

Electrolytic dissociation of allylaniline thiocyanate in methyl and ethyl alcohols and in aqueous dioxane. S. S. Kirilyuk and S. P. Mikaelyan (Med. Inst., Lvov). Zhur. Fiz. Khim. 31, 1014-18(1957).—Allylaniline thiocyanate and aniline are nonconductors, but their mixt. is a conductor in MeOH, EtOH, and dioxane. The electrolytic dissocn. consts. in MeOH, EtOH, and dioxane-H₂O solvent (dielec. const. = 25, Critchfield, et al., C.A. 47, 11184i) were 20.40 × 10⁻⁴, 3.25 × 10⁻⁴, and 4.55 × 10⁻⁴, resp.; this shows that the dissocn. is higher in solvents of higher dielec. consts.

W. M. Sternberg

Distr: 4E4j

1/1

4
2-May

MISKIDZH'YAN, S. P.

AUTHOR: Miskidzh'yan, S. P. 79-1-61/63

TITLE: Electrolytic Dissociation in Anhydrous Systems. (Elektroliticheskaya dissotsiatsiya v nevodnykh sistemakh) VI. The System Allyl-Mustard-Oil-o-Toluidine (VI. Sistema allilovoye gorchichnoye maslo - o - toluidin)

PERIODICAL: Zhurnal Obshchey Khimii, 1958, Vol. 28, Nr 1, pp. 276-279 (USSR)

ABSTRACT: It is known that in the conversion of allyl mustard oil with amines substituted thioureas form which are no electrolytes (reference 1). But it was shown that the systems which are produced of allyl mustard oil and any aromatic amine conduct electric current well. This high conductivity is hard to explain when it is generally assumed that products of this conversion only consist of substituted thioureas. In some papers published by the authors it was shown that in such systems beside the substituted thiourea a thiocyanogen-hydrogenallylamine also forms which is an electrolyte and therefore possesses a high electric conducticity. In these papers an elec-

Card 1/3

Electrolytic Dissociation in Anhydrous Systems. VI. The System Allyl-Mustard--Oil-o-Toluidine

trolytic dissociation mechanism was also suggested for these compounds whose anion in all these cases is SCN^-. The present paper gives the results of the investigation of the system allyl-mustard-oil - o - toluidine. The diagrams of all properties of this system unequivocally indicate that the components of the system energetically react along each other under formation of allyl-o-toluidyl-thiourea. The isotherm of the specific conductivity according to data by the author has two maximum values and a minimum value with regard to this compound. Neither allyl mustard oil nor - o-toluidine nor allyl--o-toluidyl-thiourea as main products of the reacting components represent electrolytes. They are not capable of producing a high conductivity in the system. Thus it was obvious that in this system, like in systems earlier investigated by the author, simultaneously with the substituted thiourea thiocyanogen-hydrogen-allal-o-toluidine forms which is an electrolyte and produces the high conductivity of the solution. The investigations of similar systems can practically be of importance, as the thiocyanogen-hydrogen-allylamines represent salts of the ammonium bases which are in recent time

Electrolytic Dissociation in Anhydrous Systems. VI. The System Allyl-Mustard-Oil-o-Toluidine 79-1-61/63

much used in medicine, because they possess bactericidal and ganglion-blocking properties. There are 2 figures, and 5 references, 4 of which are Slavic.

ASSOCIATION: L'vov Medical Institute
(Lvovskiy meditsinskiy institut)

SUBMITTED: December 10, 1956

AVAILABLE: Library of Congress

Card 3/3

1. Chemistry 2. Anhydrides-Systems-Conductivity

5(4)

SOV/76-33-4-14/32

AUTHORS: Borisevich, A. N., Miskidzh'yan, S. P.

TITLE: Investigation of the Constant of Electrolytic Dissociation of Allyl-o-toluidine Thiocyanate in Water-Alcohol Solutions (Issledovaniye konstanty elektroliticheskoy dissotsiatsii rodanistovodorodnogo allilortotoluidina v vodnospirtovykh rastvoritelyakh)

PERIODICAL: Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 4, pp 840-843 (USSR)

ABSTRACT: One of the authors synthesized a number of allyl thiocyanates (Refs 1, 2) which proved to be bactericidal and hypotensive substances. Since these substances are electrolytes it may be assumed that their above-mentioned properties are due to the ions into which they decompose. For this reason the dissociation constant (DC) of allyl aniline thiocyanate was determined already in various nonaqueous solvents (Ref 3). In the present case the (DC) of allyl-o-toluidine-thiocyanate (I) was determined in water (W), water-alcohol mixtures (WA) and absolute ethanol (E). These measurements are of importance also because the quantitative determinations of the allyl aminothiocyanates take place colorimetrically in (WA). The (DC) was measured according to the method of electrical conductivity and determin-

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Investigation of the Constant of Electrolytic Dissociation of Allyl-o-toluidine Thiocyanate in Water-Alcohol Solutions

ed by means of a normal Kohlrausch-bridge. The measurement results of the specific electrical conductivity of (I) in (W) (Table 1), in 50% (A) (Table 2), 90% (A) (Table 3), and absolute (A) (Table 4), show that the (DC) of (I) decreases with dilution of (A) (Table 5) i.e. the (DC) of (I) is reversely proportional to the (DC) of the medium. This deviation from the Nernst-Tomson rule (Ref 7) is explained by the formation of a new chemical compound between the dissolved substance and the solvent which rarely occurs in (WA) and which requires further investigations. There are 5 tables and 6 references, 7 of which are Soviet.

ASSOCIATION: L'vovskiy meditsinskiy institut (L'vov Medical Institute)

SUBMITTED: September 20, 1957

5·(4)
AUTHOR: Miskidzh'yan, S. P. SOV/76-33-7-23/40

TITLE: Electrolytic Dissociation in Non-aqueous Systems. IX. The System p-Anisidine - Allyl Mustard Oil

PERIODICAL: Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 7, pp 1610 - 1613 (USSR)

ABSTRACT: The author investigated the reaction of allyl mustard oil (I) with p-anisidine (II) with special regard to the viscosity, density, and electrical conductivity of the solution. It was found that a vigorous chemical reaction takes place between (I) and (II), and the thiocyanate ion could be colorimetrically determined in all mixtures of the system (I) + (II). The specific electrical conductivity of the solutions under investigation was measured at 60 ± 0.5°. The last-mentioned measurement results as well as those concerning their viscosity (Table) indicate vigorous chemical reaction as well. For the purpose of investigating the influence exerted by temperature on the mixtures, the latter were heated to 100 ± 5° for 9 hours, and the SCN^- -concentration was determined. According to the previous experiments (Ref 1), the author found increasing SCN^- -concentration of mixtures with an excess of (I) after the

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heating. All measurement results indicate that two parallel reactions occur when (I) is mixed with (II). The main reaction (94.7%) forms allyl p-anisidyl thiocarbaminate (III), while the side reaction produces allyl p-anisidine thiocyanate (IV). The two reaction products were separated and analyzed, (IV) being subjected to electrolysis on a device described in reference 1. According to the results of electrolysis, the author suggests a reaction scheme of the electrode process. There are 1 table and 3 Soviet references.

ASSOCIATION: L'vovskiy meditsinskiy institut (L'vov Medical Institute)

SUBMITTED: January 9, 1958

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SOV/76-33-9-4/37

5(4)
AUTHORS: Kirilyuk, S. S., Miskidzh'yan, S. P.

TITLE: Physico-chemical Analysis of Current Conducting Non-aqueous Systems and Investigation Into the Electrolytic Dissociation Mechanism of the Compounds Formed Therein. II. The System Allyl-isothiocyanate - Quinoline

PERIODICAL: Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 9, pp 1918-1921 (USSR)

ABSTRACT: It could be assumed in connection with experimental results of previous papers (Refs 2-4) that allyl-chinolrodanide will form during the mixing of allyl-isothiocyanate (I) with quinoline (II), which was proved by the present experiments. To investigate the character of the reaction between (I) and (II), the density, viscosity, electroconductivity (EC) and the concentration of the SCN^--ions were measured at $20\pm0.1^\circ$ before and after heating of the mixtures to $100\pm5^\circ$ for 24 hours. The density was measured in a pycnometer and the viscosity in the closed viscosimeter. The isothermal lines of the density as well as of the viscosity of the reaction mixture after heating, clearly indicate a reaction of the components. It is assumed that thereby a compound of the composition $C_3H_5NCS.C_9H_7N$ (III)

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Physico-chemical Analysis of Current Conducting Non-aqueous Systems and Investigation Into the Electrolytic Dissociation Mechanism of the Compounds Formed Therein. II. The System Allyl-isothiocyanate - Quinoline

forms. According to the common method, the (EC) was measured in a closed container with non-platinized electrodes, and the presence of (III) which is an electrolyte, was determined by the considerable (EC) of the solution. (III) was extracted and the electrolytic dissociation was investigated. An electrolytic dissociation mechanism of (III) is mentioned on the basis of the results obtained. A paper by N. K. Voskresenskaya (Ref 1) is mentioned in the text. There are 3 figures and 6 Soviet references.

ASSOCIATION: L'vovskiy meditsinskiy institut (L'vov Medical Institute)

SUBMITTED: January 24, 1958

5(4) SOV/76-33-9-18/37

AUTHORS: Miskidzh'yan, S. P., Kozlenko, F. N., Volina, I. A.

TITLE: Electrolytic Dissociation in Nonaqueous Systems. X. The System Allyl Mustard Oil - Piperidine

PERIODICAL: Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 9, pp 2002-2006 (USSR)

ABSTRACT: The system allyl mustard oil - piperidine (I) was investigated by N. S. Kurnakov and others (Ref 1) by different methods, and a vigorous reaction was found to take place among the components under the formation of allyl piperidyl thiourea (II). N. A. Trifonov (Ref 2) showed that the system (I) exhibits a noticeable electrical conductivity. It was shown (Ref 3) that electrical conductivity is not due to (II), but to the product of a side reaction, namely to thiocyanogen hydrogen allyl piperidine (III), in which connection the concentration of (III) rises considerably with heating. The present paper gives measuring results of the SCN^--concentration (of (III)), of the specific electrical conductivity, of the viscosity of mixtures depending upon the heating time, as well as data of an electrolysis of (III) (permitting statements to be made on the

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Electrolytic Dissociation in Nonaqueous Systems. X. The System Allyl Mustard Oil - Piperidine

dissociation of (III)). Investigations were made by the measurement of the electromotive force (emf) of the system (I); potentiometric measurements were also made. The components of (I) were mixed after prior cooling and the SCN^--concentration was immediately determined colorimetrically (Ref 4). Electrical conductivity rises with the SCN^--concentration, and drops with heating despite rising SCN^--concentration; this is explained by a rise in viscosity. A 40-45% solution of (III) was obtained by extraction; the solution was submitted to electrolysis with an earlier described apparatus (Ref 5). On the strength of data obtained, a reaction scheme is given for cathode and anode. The statement made by M. Dol (Ref 8) that glass electrodes are unsuitable for measurements in nonaqueous solutions was confuted by N. A. Izmaylov et al (Refs 9-11), and F. N. Kozlenko (Ref 12). In the case under review, the emf was measured in a cell with a glass electrode (Fig 5) and a calomel electrode for comparison, in addition to a hydrogen electrode, and isotherms were compared (Fig 6). The diagrams are similar to those pertaining to the potentiometric titration of a neutralization reaction. There are 6 figures and

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Electrolytic Dissociation in Nonaqueous Systems. X. The System Allyl Mustard Oil - Piperidine

12 Soviet references.

SUBMITTED: February 24, 1958

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KIRIYUK, S.S.; MISKIDZH'YAN, S.P.

Physicochemical analysis of conductive nonaqueous systems and mechanism of the electrolytic dissociation of the compounds formed in them. Part 3: The systems allyl mustard oil - diethylamine and allyl mustard oil - triethylamine. Izv.vys.ucheb.zav.; khim.i khim.tekh. 3 no.6:1002-1007 '60. (MIRA 14:4)

1. L'vovskiy meditsinskiy institut, kafedra biologicheskoy khimii.
(Mustard oils) (Diethylamine) (Triethylamine)

MISKIDZH'YAN, S.P.

Electrolytic dissociation in nonaqueous systems. Part 8: The system allyl mustard oil - methylaniline. Zhur.fiz.khim. 34 no.1:157-161 Ja '60. (MIRA 13:5)

1. L'vovskiy meditsinskiy institut.
(Isothiocyanic acid) (Aniline)